

TO: ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES & SERVICE CENTERS
ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES REPRESENTATIVES

MODELS AFFECTED: MICRO-COM H40 Version I (P.C. Board 1700-7401-100)
MICRO-COM H40 Version II (P.C. Board 1700-7405-100)

PROBLEM: ALTERNATOR WHINE IN RECEIVER OUTPUT

Alternator whine can be appreciably reduced with the modification techniques presented in this bulletin. There are two suggested means for eliminating the whine:

Method 1 - Applicable to both series MCH 40 I and MCH 40 II

Connect the fused 13.8 VDC power cable directly to the battery terminals. If the cable is already connected to the battery terminals or if the whine has not been satisfactorily eliminated, implement the modification described in Method 2.

Method 2 - Applicable to MCH 40 I Series (P.C. Board 1700-7401-100)

If the whine is not satisfactorily eliminated by Method 1, proceed with the following modification.

Step 1 - Refer to printed circuit board (Regency #704-011) and locate the pad and associated components shown in Figure 1. Remove the solder from the pad and use a sharp knife to modify the pad as shown in Figure 2.

Step 2 - Drill two small .037" dia. holes (#63 drill) in the modified pad (see Figure 2). Drill one .1285" dia. hole (#30 drill) in the side of the chassis for mounting the 1000 mfd capacitor as shown in Figure 3.

Step 3 - Mount the solder lug under the nut holding IC202 to the chassis and position the solder lug as shown in Figure 3.

Step 4 - Connect the 1.2 ohm resistor between pad at P9 (13.8 VDC) and the modified pad as shown in Figure 2.

Step 5 - Using mounting bracket, mount the 1000 mfd capacitor as shown in Figure 3. Solder negative lead to the solder lug installed in Step 3. Insulate the positive lead and put end through the small hole in the modified pad shown in Figure 2. Place an elevated jumper (approx. 1/8" above P.C. Board) between pad segments containing Pin 5 and C246, as shown in Figure 2 and solder in place.

Method 2 - Applicable to MCH 40 II Series (P.C. Board 1700-7405-100)

If the whine is not eliminated by Method 1, then proceed with the following modification:

Step 1 - Remove jumper JU211 that supplies 13.8 VDC to Pin 5 of IC202. Replace the jumper with a 1.2 ohm, 1W resistor. See Figure 4 and Figure 5.

Step 2 - Mount the solder lug under the nut holding IC202 to the chassis and position the lug as shown in Figure 3.

Step 3 - Drill a hole .1285" dia. (#30 drill) in side of the chassis for mounting the 1000 mfd capacitor as shown in Figure 3.

Step 4 - Drill a hole .037" dia (#63 drill) in the P.C. Board pad that connects Pin 5 of IC202 and C246 and the 1.2 ohm resistor installed in Step 1. This hole will be used for the positive lead coming from the 1000 mfd capacitor.

Step 5 - Using mounting bracket, mount the 1000 mfd capacitor as shown in Figure 3. Solder negative lead to the solder lug installed in Step 2. Insert positive lead through hole provided in Step 4 and solder to P.C. Board.

Note: Be careful not to damage parts or cause short circuits from metal particles when drilling holes.

A Parts Kit for the above modification is available at a nominal handling charge. The kit contains the following parts:

- 1.2 ohm, 1W, 5%
- 1000mfd, 16V capacitor - 1513-0102-002
- Solder Lug
- Mounting Clamp
- 3½" spaghetti
- #4-40 nut, bolt and washer

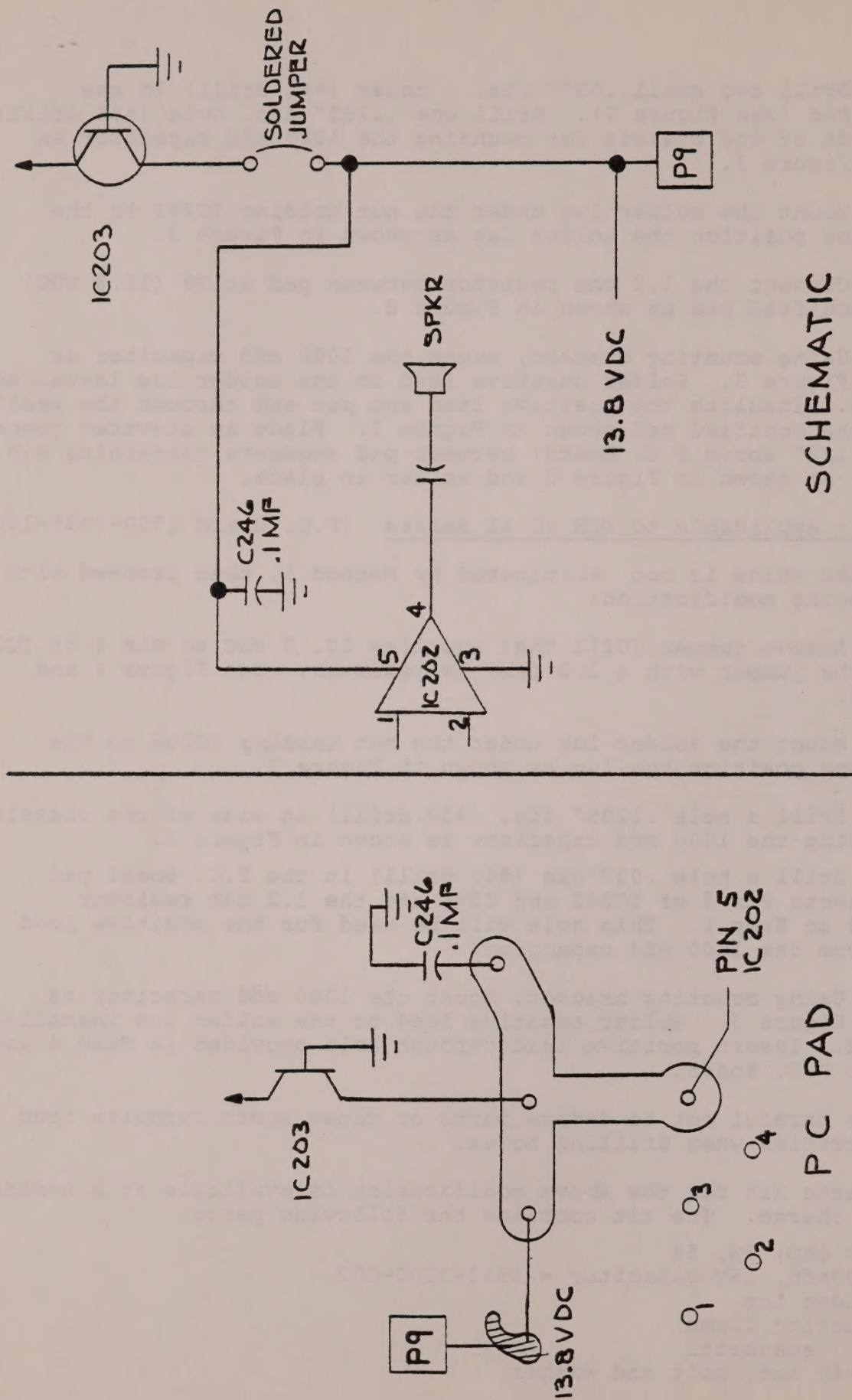
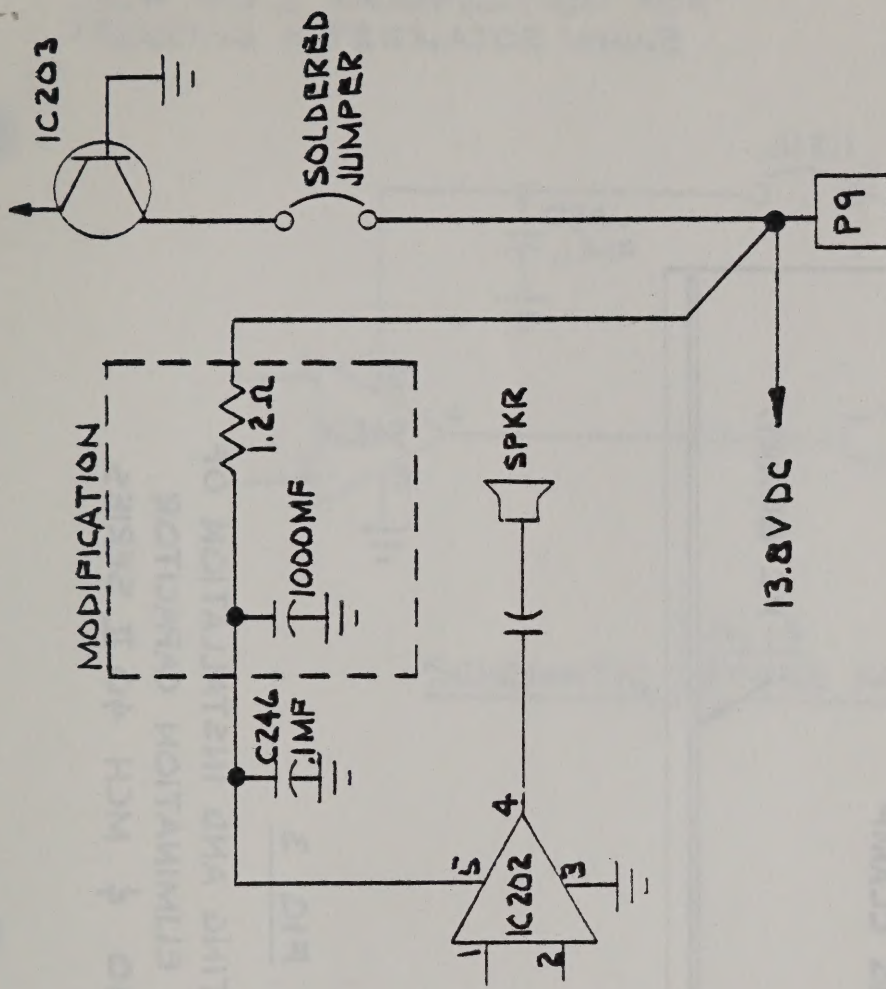
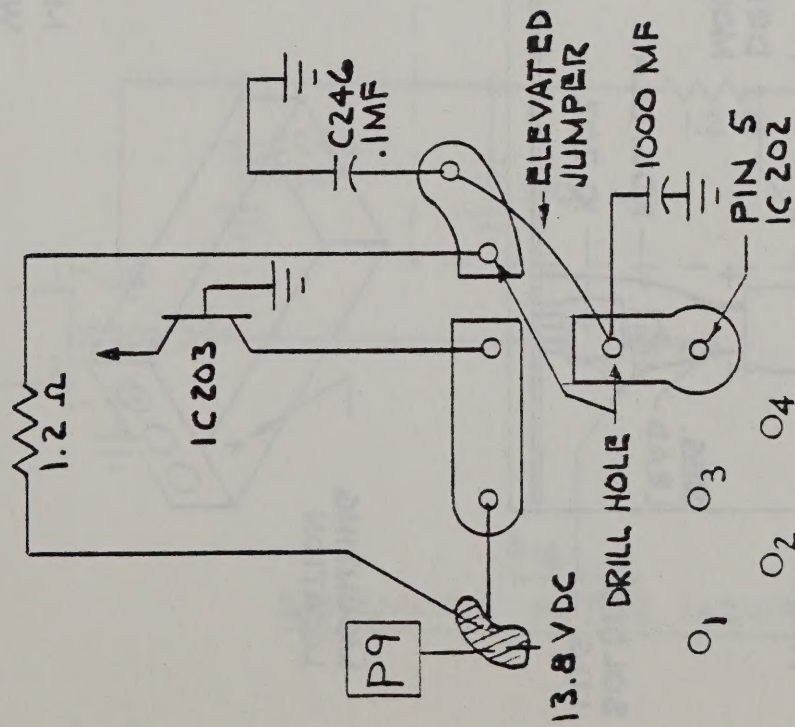


FIG 1

SCHEMATIC AND PC BOARD PAD BEFORE MODIFICATION



SCHEMATIC



PC PAD

FIG 2
SCHEMATIC AND PC BOARD AFTER MODIFICATION
MCH 40 VERSION I

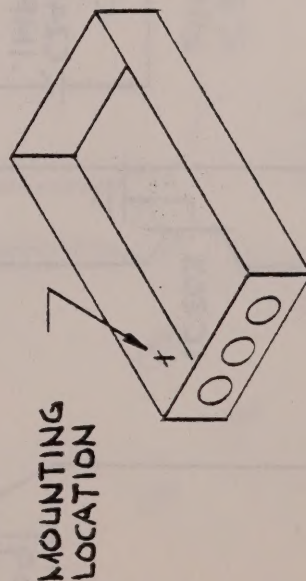
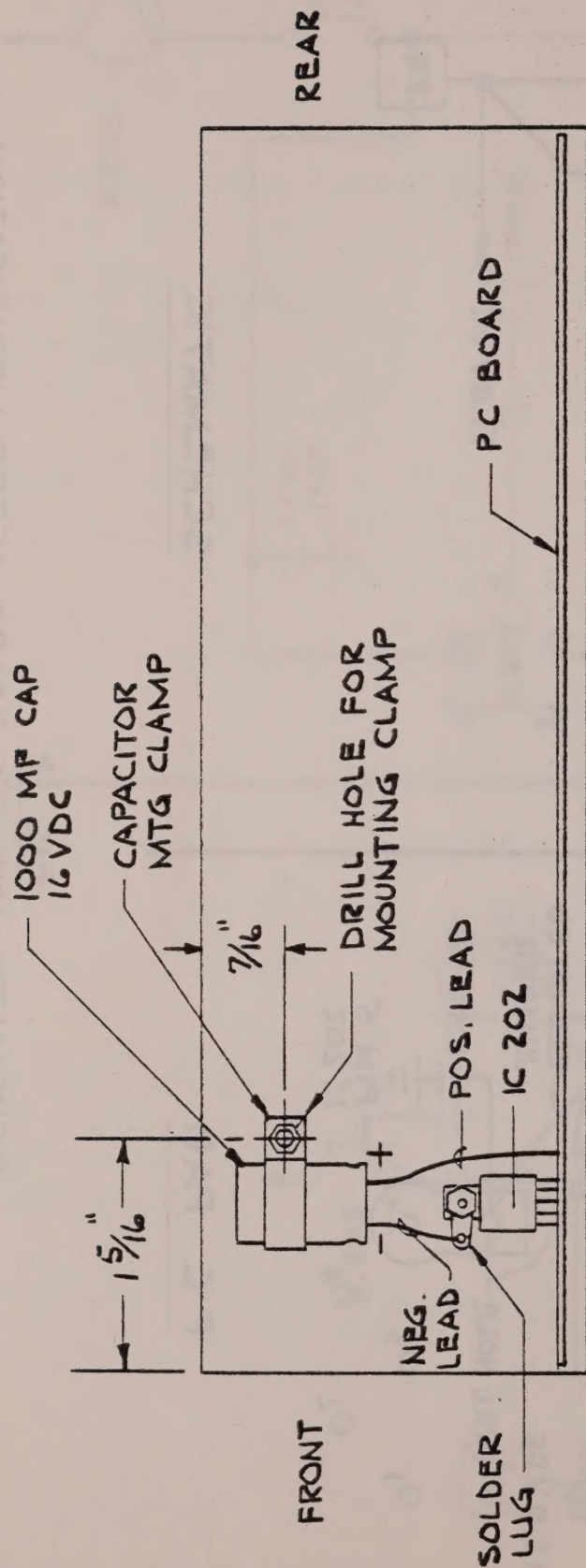


FIG 3

MOUNTING AND INSTALLATION OF
WHINE ELIMINATION CAPACITOR
MCH 40 & MCH 40 II SERIES

MCH 40 II MODIFICATION FOR REDUCING ALTERNATOR WHINE

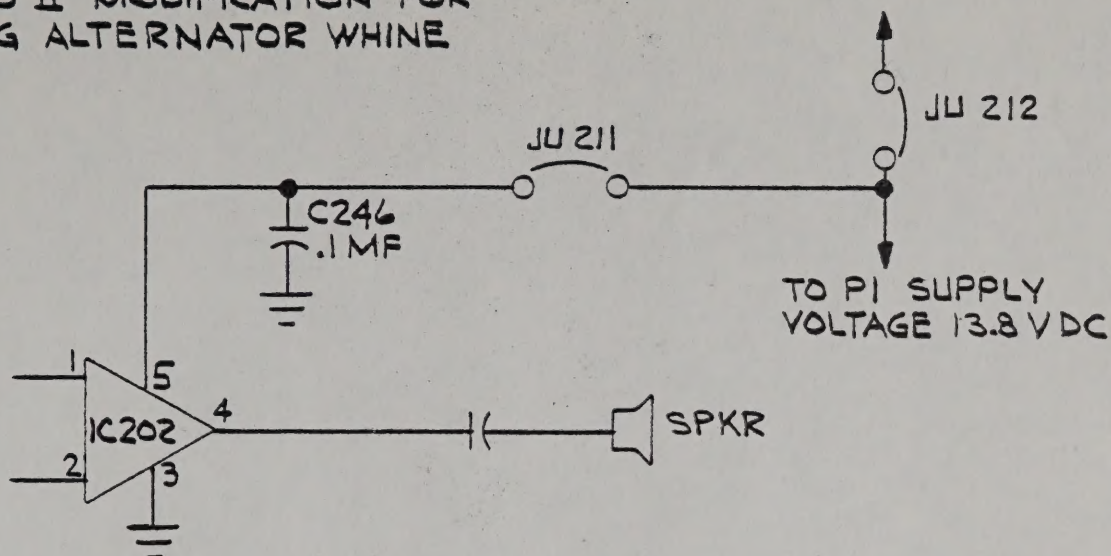


FIG. 4
SCHEMATIC BEFORE MODIFICATION

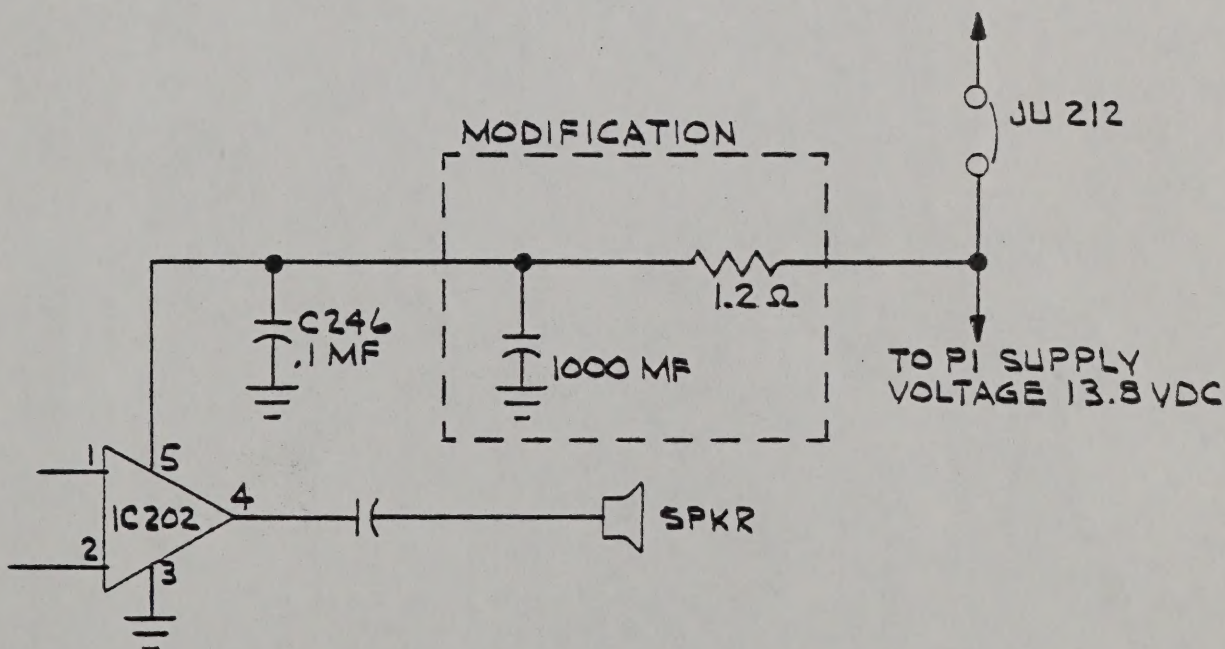


FIG 5
SCHEMATIC AFTER MODIFICATION

